

## **REMARKS**

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

### **I. Telephone Interview**

Initially, the Applicants would like to thank Examiner Eom for granting and conducting a telephone interview on September 16, 2009 in connection with the above-identified application.

During the interview, and as stated in the Interview Summary, the Examiner suggested (i) amending the method of claims 6-9 and the computer-readable recording medium of claims 32-34 to connect the method and the recording medium to a particular machine (e.g. adding a step of collecting data from a machine and/or tying the various steps to a machine that requires more than software), and (ii) amending the apparatus of claim 18 to positively recite the structural details of the computation unit and to positively recite that a component of the computation unit performs the computations. In addition, during the interview, the Examiner indicated that the 35 U.S.C. § 101 and § 102 rejections would most likely be overcome if the Applicants amended the claims according to the above-mentioned suggestions.

### **II. Amendments to the Claims**

Based on the above-mentioned interview, independent claims 6, 18 and 32 have been amended as suggested by the Examiner in order to overcome the 35 U.S.C. § 101 rejections and to overcome the reference relied upon in the 35 U.S.C. § 102 rejection.

Further, claims 41-43 have been cancelled without prejudice or disclaimer of the subject matter contained therein.

It is also noted that claims 6, 7, 18-22 and 32-34 have been amended to make a number of editorial revisions thereto. These editorial revisions have been made to place the claims in better U.S. form. Further, these editorial revisions have not been made to narrow the scope of protection of the claims, or to address issues related to patentability, and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

Furthermore, non-elected claims 1-5, 10-17, 23-31, 35-40, 44 and 45 have been identified as being withdrawn.

### **III. Amendments to the Specification and Abstract**

The specification and abstract have been reviewed and revised to improve their English grammar. The amendments to the specification and abstract have been incorporated into a substitute specification and abstract. Attached are two versions of the substitute specification and abstract, a marked-up version showing the revisions, as well as a clean version. No new matter has been added.

### **IV. 35 U.S.C. §101 Rejections**

Claims 6-9 were rejected under 35 U.S.C. § 101 for failure to recite statutory subject matter. Specifically, claims 6-9 were rejected for reciting a method consisting of solely mathematical operations and for reciting a method that is not tied to another statutory class, such as an apparatus that requires more than just software and/or that does not transform the underlying subject matter.

As mentioned above, independent claim 6 has been amended as suggested by the Examiner. Specifically, claim 6 has been amended to recite that (i) data of a dialysis patient is obtained using a computation unit and (ii) the obtained data and a processor of the computation unit are used to compute a Pyle-Popovich model. Further, other portions of claim 6 have been amended to clarify that the computation unit (including the processor) is used to perform the claimed method and that the obtained data is transformed so as to be used as an index for a peritoneal function test. As a result, the method of claim 6 is now clearly tied to another statutory class (i.e., the computation unit including the processor) and the method of claim 6 clearly transforms the underlying subject matter (i.e., the obtained data) into an index for a peritoneal function test.

Therefore, amended independent claim 6 and claims 7-9 that depend therefrom clearly satisfy the requirements of 35 U.S.C. § 101 identified by the Examiner and withdrawal of this portion of the 35 U.S.C. § 101 rejection is respectfully requested.

In addition, claims 32-34 were rejected under 35 U.S.C. § 101 for failure to recite statutory subject matter. Specifically, claims 32-34 were rejected for failing to be tied to another statutory class (e.g., an apparatus that requires more than just software) and/or for failing to transform the underlying subject matter.

As mentioned above, independent claim 32 has been amended to require that the program recorded on the computer-readable recording medium causes a computer to execute a specific method, wherein the method executed by the computer is similar to the method now recited in amended claim 6. As a result, amended independent claim 32 and claims 33 and 34 that depend therefrom clearly satisfy the requirements of 35 U.S.C. § 101 identified by the Examiner and withdrawal of this portion of the 35 U.S.C. § 101 rejection is respectfully requested.

Claims 41-43 were also rejected under 35 U.S.C. § 101 for failing to recite statutory subject matter. As a result, claims 41-43 have been cancelled. Therefore, withdrawal of this portion of the 35 U.S.C. § 101 rejection is respectfully requested.

In view of the above, it is respectfully submitted that all portions of the 35 U.S.C. § 101 rejections have been overcome.

#### **V. 35 U.S.C. § 102 Rejection**

Claims 18-22 were rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. Specifically, the rejection of claims 18-22 indicated that the expressions relating the apparatus to an intended operation are of no significance in determining the patentability of the apparatus claim (see page 4 of the Office Action). In other words, the operations of the “computation unit,” as recited in claim 18 were not given patentable weight in view of the Miller reference. This rejection is believed clearly inapplicable to amended independent claim 18 for the following reasons.

Initially, the Applicants note that as discussed above, independent claim 18 has been amended to positively recite the structural details of the computation unit and to positively recite that a component of the computation unit performs the computations. As a result, it is respectfully submitted that all of the structural limitations required by claim 18 must be disclosed by Miller in order for claim 18 to be anticipated by Miller. The Applicants submit that no portion of the Miller reference discloses or suggests the structural limitations of the computation unit now required by amended independent claim 18 and the claims that depend therefrom. Specifically, the Office Action does not identify a single portion of the Miller reference that can be relied upon for teaching the structural limitations required by claim 18. Therefore, for this

reason alone, it is respectfully submitted that claims 18-22 are patentable over the Miller reference.

Furthermore, for the Examiner's convenience, the differences between the structure of the claimed invention and the Miller reference are briefly discussed below.

Specifically, amended independent claim 18 recites a peritoneal dialysis planning apparatus including a processor, a memory, a computation unit, and an output unit. In addition, claim 18 recites that the computation unit (i) obtains data of a dialysis patient and stores the obtained data in the memory, (ii) obtains individual initial estimate values for  $MTAC_{glc}$ ,  $MTAC_{un}$ , and  $MTAC_c$  by using the obtained data and the processor to compute a Pyle-Popovich model and for a  $L_P S_C / L_P S$  ratio, (iii) obtains computation results by computing a Three-Pore Theory model using the processor and the individual initial estimate values for the  $MTAC_{glc}$ , the  $MTAC_{un}$ , the  $MTAC_c$ , and the  $L_P S_C / L_P S$  ratio, (iv) calculates, using the processor and a Genetic Algorithm, an optimal solution of the computation results obtained by computing the Three-Pore Theory model, a (v) calculates a  $MTAC_{un} / MTAC_c$  ratio using the processor, an optimal  $MTAC_{un}$  determined using the optimal solution and an optimal  $MTAC_c$  determined using the optimal solution. Finally, claim 18 recites that the output unit outputs the  $MTAC_{un} / MTAC_c$  ratio as an index for a peritoneal function test. Miller fails to disclose or suggest the above-mentioned distinguishing limitations required by claim 18.

Rather, Miller is merely directed to a calculator device that traces and stores points of interest (see Figs. 1-8 and abstract).

Thus, in view of the above, it is apparent that Miller is not at all related to the claimed peritoneal dialysis planning apparatus that obtains dialysis data of a patient and outputs a ratio as an index for a peritoneal function test, since Miller merely teaches a graphing calculator.

More specifically, Miller's disclosure of a graphing calculator is not a disclosure or suggestion of an apparatus that (i) obtains dialysis data of a patient, (ii) obtains individual initial estimate values for  $MTAC_{glc}$ ,  $MTAC_{un}$ , and  $MTAC_c$  by using the obtained data a processor to compute a Pyle-Popovich model and a  $L_P S_C / L_P S$  ratio, (iii) computes, using the processor, a Three-Pore Theory model, (iv) calculates, using the processor, an optimal solution of computation results from the Three-Pore Theory model by using a Genetic Algorithm, (v) calculates, using the processor, a  $MTAC_{un} / MTAC_c$  ratio using an optimal  $MTAC_{un}$  and an optimal  $MTAC_c$  determined from the optimal solution, and (vi) outputs the  $MTAC_{un} / MTAC_c$  ratio as an index for a peritoneal function test, as required by claim 18.

Therefore, because of the above-mentioned distinctions it is believed clear that independent claim 18 and claims 19-22 that depend therefrom are not anticipated by Miller.

Furthermore, there is no disclosure or suggestion in Miller or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Miller to obtain the invention of independent claim 18. Accordingly, it is respectfully submitted that independent claim 18 and claims 19-22 that depend therefrom are clearly allowable over the prior art of record.

Amended independent claims 6 and 32 (which were not rejected under 35 U.S.C. § 102) are directed to a method and a program, respectively and each recite features that correspond to the above-mentioned distinguishing features of independent claim 18. Thus, for the same reasons discussed above, it is respectfully submitted that claims 6-9 and 32-34 are allowable over Miller.

## **VI. Conclusion**

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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